

Delaware Executive Department

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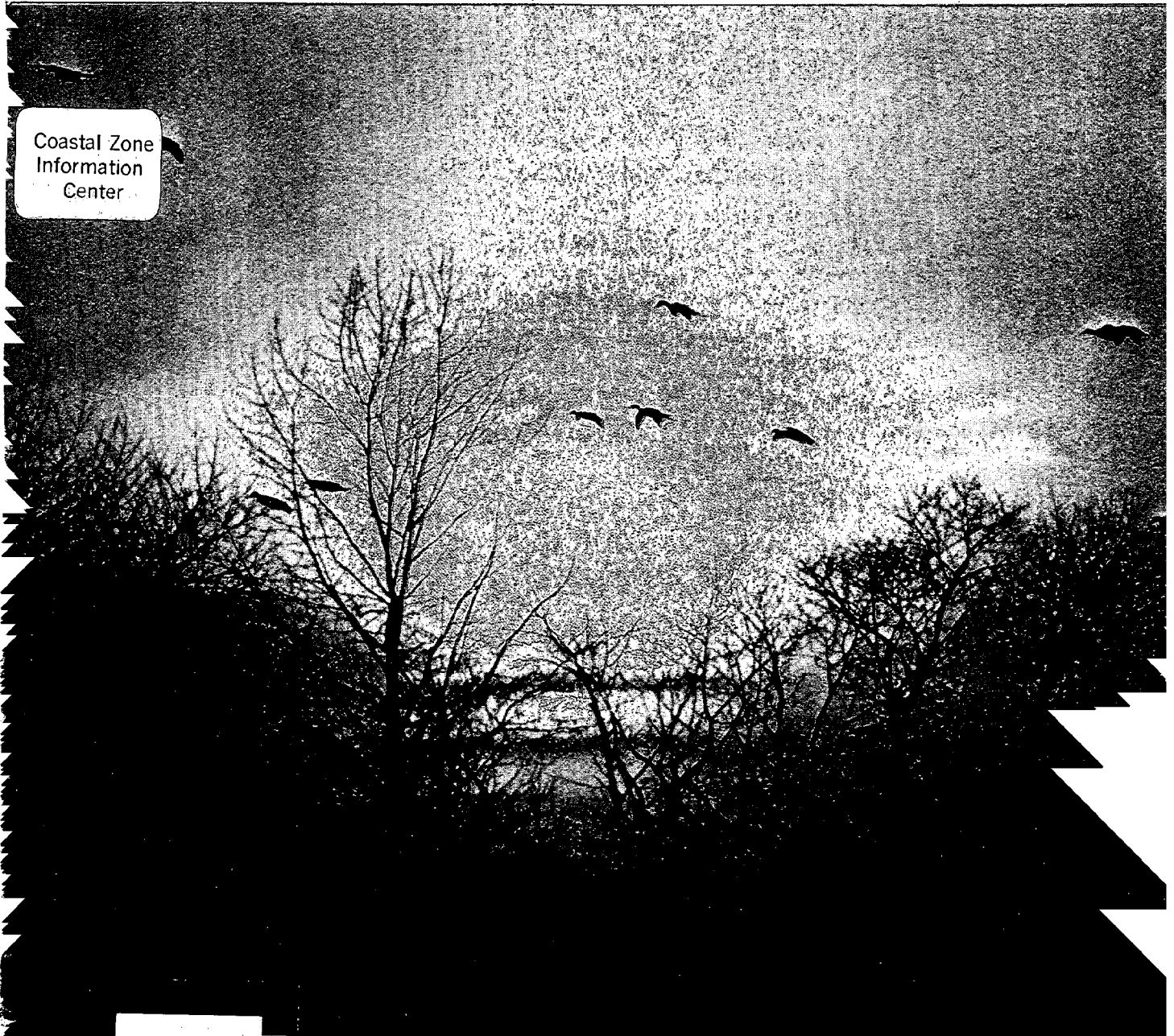
COASTAL ZONE  
INFORMATION CENTER

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## DELAWARE OUTDOOR RECREATION PLAN

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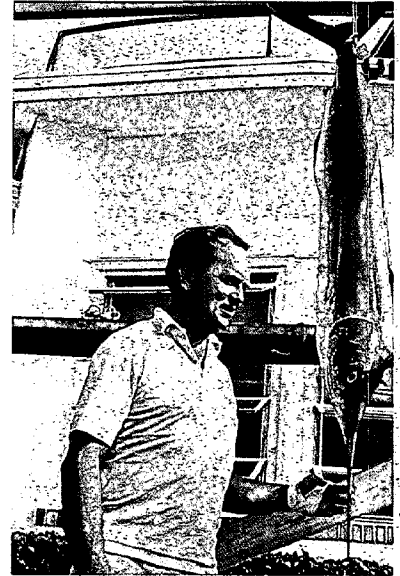
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STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
DOVER

RUSSELL W. PETERSON  
GOVERNOR



To the Citizens of Delaware:

I am pleased to submit this summary of Delaware's Comprehensive Outdoor Recreation Plan, which is the guide for acquisition and development programs to preserve Delaware's natural resources and provide outdoor recreation facilities for Delaware residents and visitors.

Delaware is blessed with natural resources--with its relatively unspoiled ocean front, with its bays and wetlands, and with its many wildlife areas, parklands, forests, ponds, and streams. Yet, most importantly, Delaware is blessed with opportunity--an opportunity to recognize that the quality of life in Delaware is dependent largely on these resources, and the opportunity to act now to insure their protection, proper development and enjoyment.

The Delaware Comprehensive Outdoor Recreation Plan reflects the State's goals to maintain and improve the quality of the environment and to provide present and future generations of residents and visitors with the opportunities for a satisfying outdoor recreation experience.

Please review this summary of the Delaware Comprehensive Outdoor Recreation Plan. We invite your comments and suggestions as further planning and action is undertaken to achieve these goals.

Sincerely,

*Russell W. Peterson*

Russell W. Peterson  
Governor

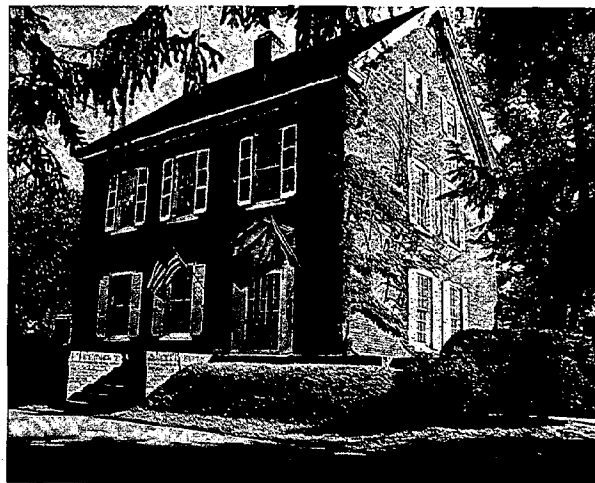
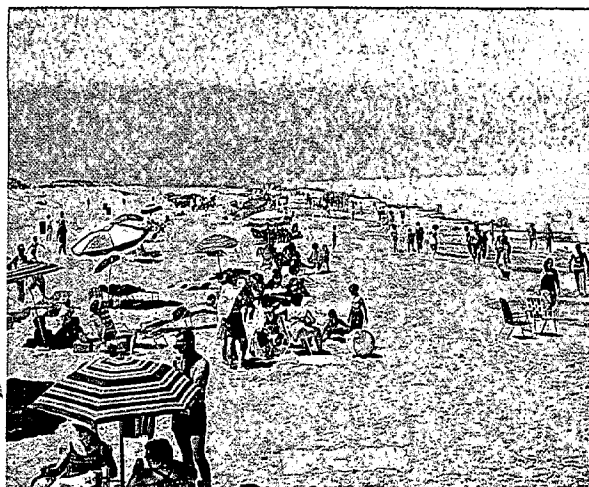
## INTRODUCTION

This report presents in condensed form the findings and recommendations contained in the Delaware Comprehensive Outdoor Recreation Plan including an evaluation of Delaware's historic and potential role in outdoor recreation, an inventory of existing recreation facilities, a statistical estimate of present and future demands for these facilities, and a computation of the needs required to fulfill the recreation demand to the year 2000.

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## GOALS AND OBJECTIVES

The primary goal of the Outdoor Recreation Plan is a comprehensive, orderly, efficient and achievable program for outdoor recreation planning, programming and action for the residents and visitors of the State of Delaware. This process must strive to increase the opportunity for recreation in the out-of-doors for all uses; to preserve, protect and enhance the State's natural resources; and to protect and restore the natural aspects of the outdoor environment. The goal of this plan is to provide a program for a high quality of life for residents and visitors alike through the proper use and enjoyment of Delaware's natural resources.

Specific objectives of the Delaware Outdoor Recreation Plan are to:

- . Provide opportunities for physical and mental revitalization through the development of a diversified system of outdoor recreation facilities.
- . Prepare programs and plans for the preservation of irreplaceable natural resources.
- . Develop programs and policies for the coordination of acquisition and development efforts of all State agencies with those of other public and semi-public bodies engaged in providing facilities for outdoor recreation, in fish and wildlife conservation, or in the preservation of scenic, cultural, or historic resources.
- . Determine an appropriate level of State action vis-a-vis the role of private enterprise in the provisions of outdoor recreation facilities.
- . Assign responsibility, evaluate potentials and constraints, delineate special problems, propose programs and actions, and establish priorities for the provision of outdoor recreation facilities.

These objectives outline a work program aimed at the creation of an outdoor recreation system to serve as a guideline for local, county, State and federal government; private enterprise, and the activities of civic, service, and conservation groups throughout the State. The growing outdoor recreation need, the limited natural resources, and the trend toward continued urbanization demand that this effort be made and that this system be developed and above all implemented.

## DELAWARE'S OUTDOOR RECREATION POTENTIAL

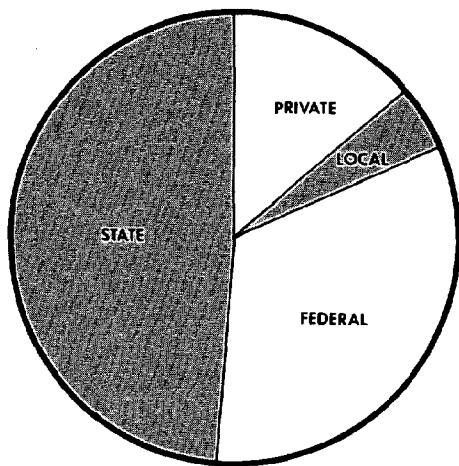
Delaware, the second smallest of the 50 states, possesses outstanding outdoor recreation potentials. Located on the Atlantic Coastal Plain at the foot of the Piedmont Plateau, and bounded on the east by the Delaware River, Delaware Bay, and the Atlantic Ocean, Delaware offers many recreational attractions.

The northern portion of the State is endowed with wooded rolling hills and rock-strewn streams. The Coastal Plain, possessing broad tidal wetlands, contains as a habitat for vast numbers and varieties of game and waterfowl, numerous streams and man-made lakes, large expanses of forest, and miles of sandy ocean and bay beaches.

These resources, all available within a hundred miles, provide the potential for all but a few outdoor recreation experiences; a potential offered only in Delaware.

## INVENTORY

An inventory of outdoor recreation resources was conducted to gain an insight into the type, ownership, and location of outdoor recreation facilities presently available in Delaware. The inventory revealed that over 74,400 acres of land are currently available for outdoor recreation use, including 8,500 acres of privately-sponsored reservation areas, 25,350 acres of federally owned areas, and 40,560 acres of State, county and municipally owned areas. The type and location of the presently owned areas reflect both the distribution of population and the location of various resources throughout the State. The majority of the private, county, and municipal areas are located in New Castle County where more than two-thirds of the State's population resides. The majority of the State and federal ownerships, however, are resource oriented and located where the State's resources are suited for recreational uses such as swimming, camping, hunting, nature study and fishing. The present supply of resources provide an excellent beginning in the development of a program to satisfy the outdoor recreation need.



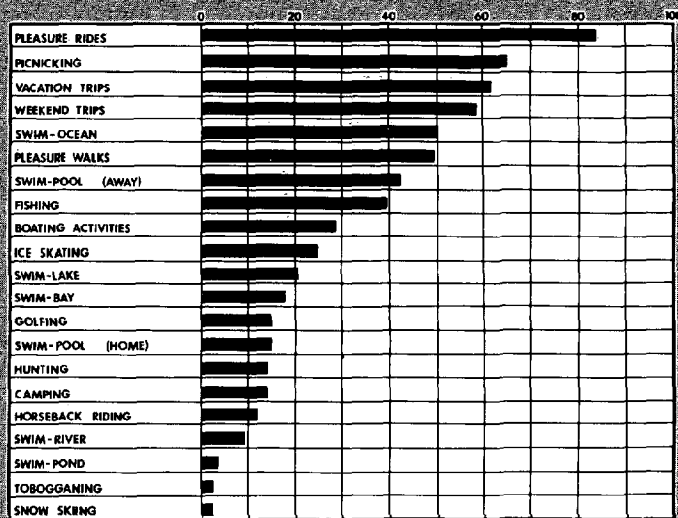
**DISTRIBUTION OF OUTDOOR RECREATION FACILITIES  
BY OWNERSHIP IN DELAWARE**

## DEMAND

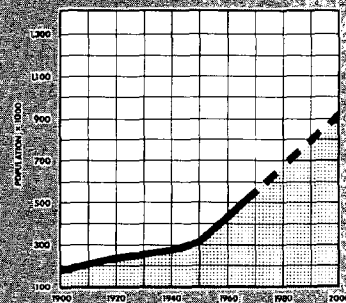
Estimates of the future level of demand are necessary in order to develop an outdoor recreation plan and program which truly satisfies individual desires. The demand for outdoor recreational opportunities is increasing at a rate exceeding the growth of population and is closely correlated to the major characteristics of modern society. This is an increasingly urban nation whose citizens are enjoying a level of affluence never before achieved. The rapid urbanization of our landscape, increased family incomes, more leisure time, mobility, and many other factors all contribute to the growing demand for outdoor recreation experiences.

The most significant factors influencing the demand for outdoor recreation include age, the growth in population, increased leisure time, and economic prosperity. Delaware and the adjacent states contain some of the nation's fastest growing urban areas. During the 1960-1970 decade, Delaware attained the third fastest growth rate of any state on the East Coast while its neighboring counties have equally impressive growth records. If this growth continues, a State population of almost one million is possible by the end of the century within a region of over 19,700,000 people. This magnitude of population, whenever achieved, will present tremendous pressure for outdoor recreation.

**PERCENT OF HOUSEHOLDS PARTICIPATING IN VARIOUS  
OUTDOOR RECREATION ACTIVITIES**



**DELAWARE - POPULATION  
1900 - 2000**



Population growth, however, is not as important as the characteristics of that population. Age is the single most important factor affecting demand, especially as it relates to the head of the household. The potential impact of this factor in Delaware can be seen in that thirty-two percent of the State's population in 1967 was under fifteen years of age and another forty-two percent was between 15 and 45-the age groups most active in outdoor recreation activities.

In addition to age factors, certain economic and social factors also greatly influence demand. Income affects the type and frequency of participation, especially in the most active experiences which necessitate the greatest public expenditure for facilities. Delaware's rising level of family income will greatly increase the demand for outdoor recreation activities such as swimming, boating, horseback riding, camping and golf.

As the level of job skill and education increases, the type and frequency of participation also increases. Recent trends in Delaware show substantial gains in educational achievement and a continued trend toward skilled and semi-skilled occupations, both of which indicates substantial demand for outdoor recreation facilities.

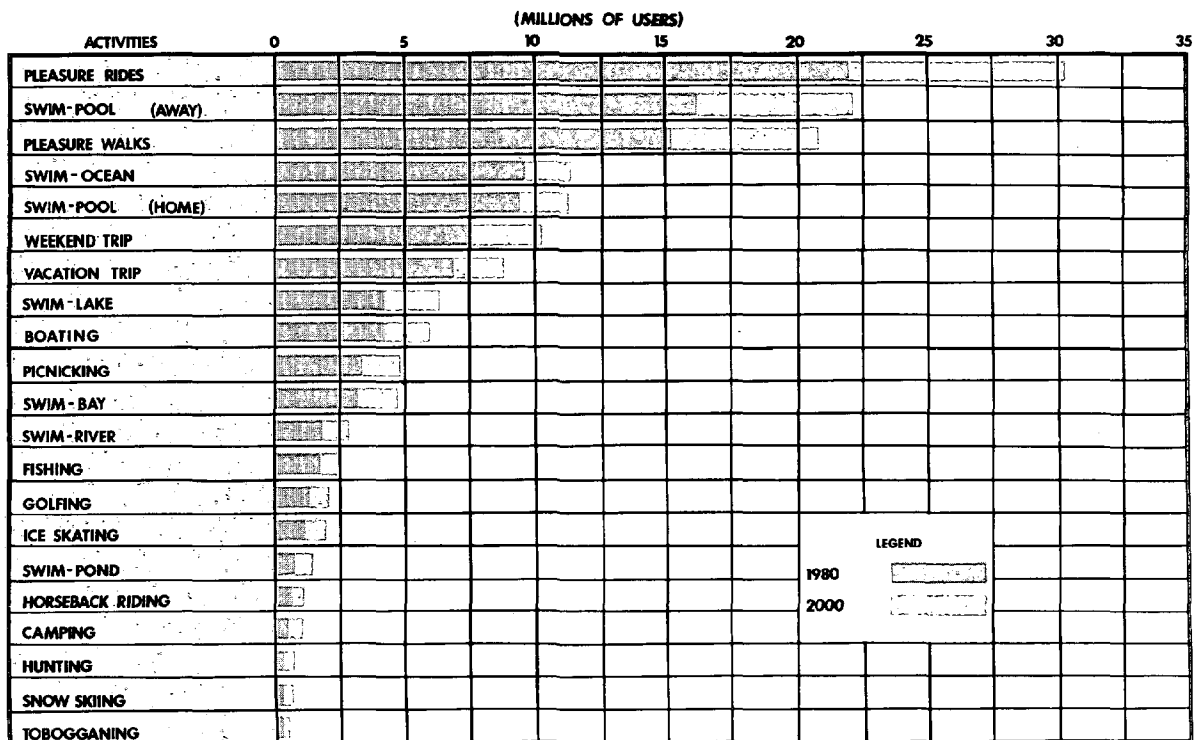
Another factor affecting demand is increased leisure time. Delawareans and residents of the surrounding region are realizing the benefits of more leisure time as the hours of work decrease and the length of vacation increases.

Decreases in the average work week from 39 hours to less than 32 hours, and increases in the average vacation from 2.3 weeks to 4 weeks may be realized by the year 2000. While some of this increased time will be used for other activities, much of it will be reflected in demand for outdoor recreation. The shorter work day will allow more time for picnicking, pleasure walking, and active sports while longer vacations will increase the amount of participation in camping and ocean or beach activities.

Mobility, residence and family size also affect demand. Americans have become more mobile as the transportation network continues to develop. This coupled with the number of automobiles makes almost any recreational activity readily available. Additionally, younger families and the recent shift in family size combine to produce demands for more specialized facilities near the point of residence. Given the trends in the factors affecting outdoor recreation demand, Delaware can expect high levels of demand for a wide variety of facilities and resources.

A study was undertaken to determine the types of activities most commonly enjoyed and the frequency of participation in each by residents and visitors in Delaware. After adjustment for expected social and economic changes during the plan period the projected level of demand for recreation was compared with the present supply of facilities to determine the deficiencies or "need" to which the plan is directed.

## ANNUAL DEMAND FOR OUTDOOR RECREATION ACTIVITIES



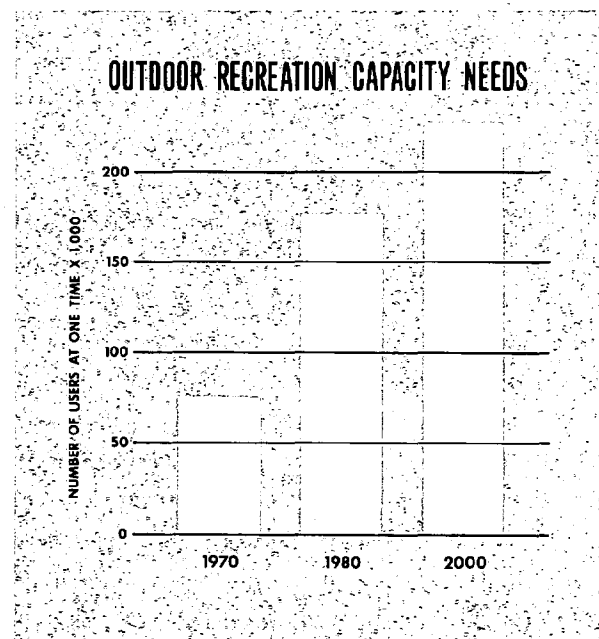
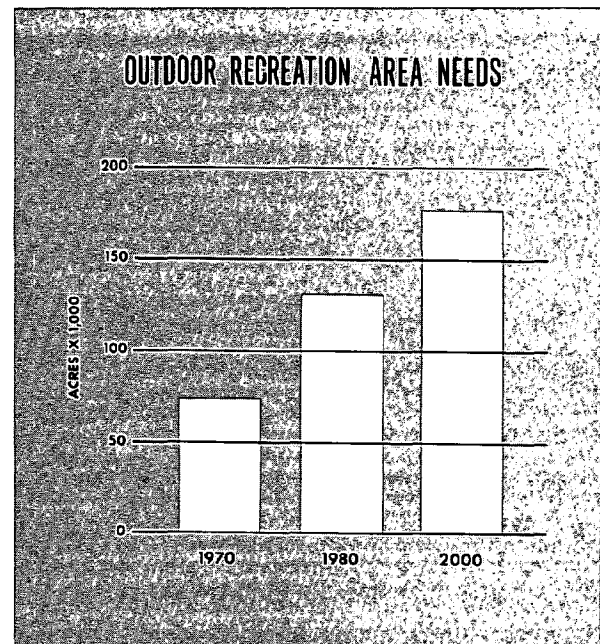
## NEEDS

The determination of the present supply of outdoor recreation facilities and the projection of total demand for various facilities do not provide sufficient background data for the development of a plan. Computation of need, is necessary. The Needs section provides the framework of land and facility requirements which can be addressed by federal, State, local, and private action and against which progress can be measured.

In order to determine the adequacy of present facilities, maximum capacities of each facility are necessary. If present facilities are not adequate, the deficiency must be expressed in terms of future land and facilities as well as the number of potentially unserved outdoor recreation participants. For these reasons, standards of space per activity per person or group of persons were derived. It must be recognized that standards serve as a guide to planning, not an absolute measure of need. The character of each site, the nature of the present and potential uses, and the aesthetics or "quality" of the locality will alter the actual needs.

Computation of the projected need requires determining the capacity of present recreation resources and the application of assumed standards of participation and space requirements to the projected demand. The differences between the projected requirements and the present capacities are the deficiencies to which the plan must address itself. The projected demand for outdoor recreation will require over 130,000 acres of land and water by 1980 and over 175,000 acres by the end of the century, to accommodate the peak day requirements. These needs expressed as capacities of users total over 538,000 persons on a peak day in 1980 and 700,000 by the year 2000. Deficiencies in eight of the most popular outdoor recreation activities alone exceed 300,000 users per day in 1980 and 460,000 by the end of the century.

Meeting these needs requires a plan and an action program. It also requires implementation, the follow-through of acquisition and development by all levels of government. Most of all, it requires public understanding and concern. Recreation needs will not be met simply because this plan was prepared. There must be a combination of time, money and effort by all levels of government, private enterprise, and individuals working together to provide Delaware with the finest outdoor recreation system possible.





## THE QUALITY ASPECTS OF OUTDOOR RECREATION

Many of the qualities which contribute to the enjoyment and importance of outdoor recreation facilities cannot be measured by dollars, user capacities, or other tangible units. The demand for outdoor recreation facilities cannot totally be met by the provision of large areas of undeveloped land, nor can it be totally met by the intensive development of smaller areas into ballfields, picnic tables, concessions, and parking lots.

The word "recreation" literally means re-creation, a restoration of the psychological as well as the physiological well-being. There must be the quiet place, the sense of belonging to a natural order, and the place for recognition of our natural and cultural heritage. Hence, a plan for outdoor recreation must give consideration to the aesthetic values just as it must consider the functional value of these natural and scenic resources. Both values need protection and preservation.

Natural resources such as forests and unaltered waterways provide a welcome psychological relief from the over-utilized character of our urban areas. These same areas provide opportunities for hunting, fishing, camping, and hiking activities, all of which provide links with our natural heritage.

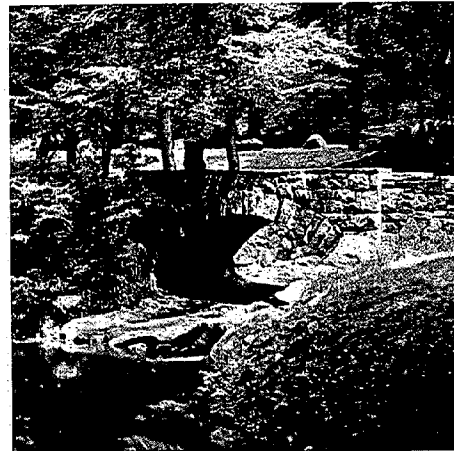
Coastal marshlands, which provide visual character and a sense of remoteness to the landscape, also serve as spawning grounds for fish, habitat for migratory waterfowl, shelter for small wildlife, and the sources of food essential to shell fish and other marine life. Once destroyed, this ecological chain and the aesthetic character are irrevocably lost.

Man-made elements and resources which are significant to man's history also have inherent qualitative value. Elements such as canals, old ports, early powder and flour mills, wooden and iron bridges, and ruins of early industry, may provide a physical link with the industrialization of past eras. Similarly, the homes of statesmen, inventors, artists, and others provide a link with the history of the State. This aspect is especially significant in Delaware due to its role in the early history of the Nation and Delaware's place as "The First State." These areas and others possessing prehistoric, scientific, or architectural value are likely to be lost to the pressure of development unless they are specifically preserved for future generations.

Still other areas provide qualitative values in an even less measurable sense. These "breathing spaces" may be little more than a small wooded area, a linear park or a stream valley. In each, an opportunity is created whereby people can escape the momentum of daily life.

If the outdoor recreation experience is to be pleasant, the waters by which or in which water-related activities occur must be pure, the air surrounding any activity must be free of harmful or distracting pollutants, and the grounds on which the activity occurs must be free of trash and other discards of our urban society. Furthermore, the natural landscape must be visible rather than hidden by unregulated signs or camouflaged by poorly arranged factories, homes, or businesses. It is critical in the desire to meet activity needs that the broader scale relationships and needs not be overlooked.

These qualitative values have been provided for throughout the Outdoor Recreation Plan in order that elements possessing such characteristics may be given proper recognition. The meeting of need only in a physical sense may "cost" society more in the long run than a less ambitious but more responsible desire to meet the total need, whether that need is physical, psychological, or environmental.



## HANDICAPPED

Outdoor recreation facilities should be available for all people. Handicapped persons are often prevented from enjoying our natural and man-made resources simply because of a failure to recognize their special needs in facility design. Handicapped persons include those of all ages and sexes suffering from some physical or psychological disability affecting mobility, visual or auditory ability, or the level of intellectual functioning. The handicapped must not be kept from enjoying the State's resources. Proper design and construction, and a positive approach to helping the disabled enjoy recreational pursuits is also the responsibility of governments and individuals alike.





## POLLUTION

The outdoor recreation experience takes place in a total environment. Pollution of the water and the air, and littering of the landscape, takes its toll of the quality of the recreation experience and seriously upsets the delicate ecological balance of nature.

Evidence of the damage can already be found. Large portions of the State's tributary waters are closed to shellfishing. Many of the State's roadways are littered with discarded trash. Scenic vistas are shrouded by smoke from industrial operations. Lakes and other water bodies provide declining recreational experiences due to algae growths and the improper use of these waters for discarding wastes.

The solution to the pollution problem will not come cheaply or easily. Studies and corrective programs are underway by all levels of government. The awareness and response of every individual is critical to ensure the protection of Delaware's environmental resources while there are still resources to protect.

## WATERSHED DRAINAGE PROJECTS

Watershed protection, flood control and drainage programs, require ditching and re-channelling of many minor water courses. This process is intended to improve natural drainage and increase agricultural and other values of adjacent lands.

These projects require clearing large areas of brush and trees, with a marked effect on the landscape and on wildlife habitat. The lands utilized for these programs possess generally unrealized outdoor recreation potential. In many cases, the new channel area is of suitable length for hiking and bicycle riding. Since the projects follow natural drainage areas rather than roads, they offer potential access to wooded, low lying stream-edges, parts of the countryside not otherwise visible. A drainage project could also open new areas for picnicking, fishing, and canoeing to increase the supply of recreational resources. State, local and private interests must consider these aspects and develop a multi-use approach to the drainage program.

## LAND ASSEMBLY AND PROTECTION

Delaware's natural resource agencies have experienced little difficulty in the past in assembling the land necessary for outdoor recreation facilities. However, continued growth in population, further urbanization, and the limitations of available funds require full consideration of all possible land assembly techniques. The State and local governments must carefully explore techniques which allow for acquisition of less than fee simple title or which make use of the powers to tax or exempt from taxes. Local government can regulate, through zoning, to establish the intent of future action and can allow for phased acquisition. The need to protect the environment, preserve open spaces, and provide for outdoor recreation requires utilization of all methods which might meet these goals at the least cost.

## WETLANDS AND THE SHORE

Delaware is endowed with extensive tidal wetlands and with a long and varied shoreline. The past unregulated development of these areas has been largely detrimental to their natural character with drastic repercussions on wildlife as well. The intrusion of man interrupts, disturbs, and destroys the wetlands and their ecology. In many cases, man has developed homes and businesses on the coastal dunes, and has filled wetlands to increase the potential for resort development.

The State's wetlands and shore area are in continual danger as witnessed by the record of applications for dredging and filling of large portions of the Rehoboth, Indian River and Assawoman Bays and the dramatic changes in the development of this area in the past 30 years. If such widespread practices are allowed to continue, further destruction of the shore and the wetlands will result. Severe deterioration of the coastal ecology and the loss of a vital element in Delaware's outdoor recreation system is imminent within a few years.

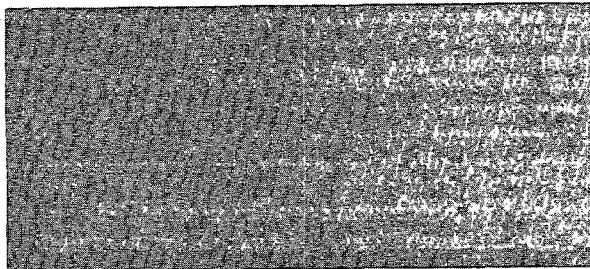


## URBAN RESIDENTS

As much of the Nation's population continues to be concentrated in increasingly urban areas, the space ideal for outdoor recreation too frequently is lost to the rush for more development. The most urgent recreation needs, those closest to the concentration of residences, are poorly accommodated because of past development patterns, the competition for lands for all other uses and the strain on local finances to meet the rapidly growing needs.

With the continued flight to the suburbs of the middle and upper income families most urban areas become the home of the poor, the aged, and the socially-disadvantaged. These, the most deprived urban residents, are almost entirely dependent upon public parks for outdoor recreation, while a wide variety of public and private facilities are available to the more affluent suburbanite. Further, these same deprived groups, because of limited income and education, often need to be informed of the facilities that are available and the benefits to be derived from enjoying them.

The number and size of the facilities is not the only consideration. The simple fact remains that in all major cities large numbers of inhabitants do not have access to public recreational facilities because the parks are not where the people are. Location must be considered. The problem is not as acute presently in Delaware as in many other areas due to the relatively low density of the urban portion of the State and the presence of on-going park and recreation programs in Wilmington and the urban areas of New Castle County. Nevertheless, in 1960, 87 percent of the Wilmington-New Castle County portion of Delaware was classified as urban. New Castle County was one of the fastest growing counties in the Nation. Obviously, this growth will place greater burdens on existing recreational areas and will limit the opportunities to obtain additional areas. Considerably more evaluation is necessary to determine the proper role of recreational facilities and programs to meet urban needs. Meeting the urban recreation need must be a priority of State and local governments.



## LOCAL GOVERNMENTS

One very significant characteristic of the present outdoor recreation program is the dominance by the State. It is highly desirable for county and local governments to assume more responsibility in the acquisition, development and maintenance of outdoor recreation programs which will serve local needs. Local development, as opposed to state development, is more likely to consider and satisfy the preferences and needs of local people.

Fiscal analysis and administrative constraints handicap all three counties and most municipalities at the present time. These constraints will persist in the immediate future while problems of development control and sewer and water service are being considered. In order to alleviate this problem, the State has made efforts in the past to assist the localities in acquisition, and it is recommended that these efforts be continued. Additionally, State funds are now available for park development at the local level. Whenever possible, the State natural resources agencies should actively participate as consultants to local governments in meeting their needs.

## LOSS OF PRIVATE RECREATION LANDS

Private lands that have long been used by the public for hunting and fishing are being withdrawn from public use at an alarming rate. The impact of the loss of these lands is compounded by the steady increase in the number of hunters and fishermen.

An estimated 75 percent of the farmland in New Castle County and northern Kent County is posted with "No Hunting or Trespassing" signs. In Sussex County and southern Kent County land is posted to a somewhat lesser degree, although some of these lands are open to hunting if permission is asked, and respect for the property is guaranteed. Some previously public game land is removed from public use every year by new highways, residential development, industrial expansion. Town annexations also take hunting land, since hunting is usually banned within town limits, although the character of the land may be unchanged for years.

If the opportunities for both active and passive outdoor recreation are to be preserved, State, local, and private interests must work together to find a means of maintaining the character of these private recreation lands.

## POLICIES FOR OUTDOOR RECREATION

As part of the development of the Outdoor Recreation Plan for Delaware, policy meetings were held with State, county and local officials; and interested private individuals. These meetings allowed an interchange of ideas and positions regarding outdoor recreation needs, facilities, locations, emphasis and other matters related to outdoor recreation planning, programming, and administration. The following policies have been incorporated into the plan and program for outdoor recreation in Delaware.

### General Policies

1. The State's Outdoor Recreation System will be characterized by resource protection, thereby providing for nature-oriented experiences and activities.
2. The State will continue to expand its technical assistance to counties and municipalities for acquisition and development of local open space facilities. This role should include financing, planning, and development assistance with the State acting as professional consultant. The State recognizes the hardship placed on the counties and the municipalities to fully meet their responsibility due to financial and administrative constraints. Therefore, the State adopts as a policy, the creation and administration of funds, programs, and staffs to act as consultants to these jurisdictions in meeting their problems.



3. In order to maximize the effectiveness of limited financial and physical resources, action will be directed primarily at acquisition of those areas deemed important in the overall system rather than development of land in public ownership.
4. Acquisition of land and exercise of other controls over the inland bays and rivers, the State's wetlands, and areas necessary to complete the "urban-serving parks" will be a first priority above all other acquisition and development actions.

Policies 3 and 4 recognize that action is necessary now to protect the State's remaining wetlands and waters from pollution, improper development, and the destruction of their ecology. The policies also recognize the limitations on the State's financial resources and the necessity of directing these to the areas of greatest need. Consequently, acquisition projects, especially where wetlands, water areas, or lands necessary to the proper development of an urban-serving facility are involved, will have first priority in the distribution of funds. The best legacy this program can leave the next generation is the opportunity to develop the land this program preserves in open space. The plan recognizes, however, that initial development is necessary to serve present needs, especially that of persons residing in the urban portions of the State.

5. A Department of Natural Resources and Environmental Control has been created at State level which encompasses all agencies, boards, commissions, and departments whose duties involved protection, development, use, or administration of natural resources. This department should be encouraged to develop in-house capability for program planning related to the funding, acquisition, and development of the State's natural resources in a manner consistent with proper Statewide Comprehensive Planning.
6. Development of outdoor recreation and open space systems and complexes should be encouraged over the acquisition of small, scattered, and unrelated parcels. Particular emphasis should be given to "filling-in" voids in present large State ownerships in order to make them more complete and usable units.
7. The federal government should be encouraged to continue its present primary role in Delaware, which is essentially concerned with navigation and with fish and wildlife management. It should also be encouraged to coordinate its recreational facilities with the State's program.

### Specific Policies

The following policies deal with a specific aspect of the open space and outdoor recreation system or its administration.

1. The State will give priority to projects which serve the recreational needs of urban residents.
2. Because of the valuable ecological contribution of marsh wetlands, the State will continue its emphasis on preservation of these areas in their natural condition and limit the use of these areas in a manner consistent with proper fish and wildlife management.
3. Promotional activities directed toward the State's outdoor recreational facilities should emphasize those areas which are presently under-utilized and the new facilities to be provided, rather than the shore. In this way, the economy of the entire State will benefit from diversified recreational experience while avoiding an overburden on the beach areas.
4. Master plans of all present and proposed outdoor recreation facilities will be developed as one of the highest priorities of the outdoor recreation planning program. Development of any area should be dependent upon this plan and should not be funded prior to the completion and approval of the master plan.
5. Recreational and other development of areas administered by the Division of Fish and Wildlife, Department of Natural Resources and Environmental Control should be compatible with the welfare of the fish and wildlife resources in order to protect the status of species populations, maximize the consumptive enjoyment of game species, and preserve the non-consumptive values of all species for aesthetic and scientific purposes.
6. Multiple use potentials of all State and other public ownerships should be fully explored, including use of school facilities and the spaces surrounding public buildings for outdoor recreational programs.
7. The State will continue its policy and program of acquisition of mill ponds and other water bodies and should acquire sufficient land at each to accommodate the recreational facilities as needed.
8. The lease-concession type arrangement will be fully utilized for commercial services provided on state lands whenever private enterprise operating under State supervision would result in a reduction in direct costs to the State while maintaining the same level of service to the public, or bring about a general upgrading of the service provided.
9. Regulations should be adopted and enforced which allow strong State control over dredging, filling, and bulkheading of wetlands and tidal shorelines, control over impoundment projects and the artificial ponds or lakes created by these projects.
10. The State will actively encourage the provision of camping facilities by private enterprise operating under adequate regulations to allow for a reasonable return to the owners. In this regard, the State should avoid under-cutting any private operation by less than fair market rates and limit its camping development to lands which are capable of supporting such activities pursuant to comprehensive master plans.
11. The present State outdoor recreation lands and facilities will remain under State control and operation even if these do not conform to proposed ownership policies until another unit of government indicates a willingness and ability to use them for their needs, or until disposition of these properties would not handicap satisfaction of the needs expressed in the State's outdoor recreation program.
12. Local governments will be encouraged to develop recreational areas specifically suited to the needs of the area. This policy recommends that the facility development in local parks be evaluated in terms of social, economic and physical characteristics of the proposed area to be served.
13. Preparation of open space and recreation plans as part of local comprehensive plans shall be encouraged to serve as the guide for local acquisition and development projects and for distribution of State and federal grants.
14. Private enterprise shall be encouraged to satisfy a substantial portion of the outdoor recreation need, especially in those activities which are appropriately suited to commercial endeavors such as campgrounds, horseback riding stables (academies), golf courses, marinas, etc. The private facilities will also be expected to meet the highest standards of environmental protection and public service.

## PLAN

The Delaware Comprehensive Outdoor Recreation Plan is dedicated to the achievement of a system of parks, forests, fishing areas, wildlife areas and open spaces to serve the present and future residents of Delaware and its service area. It encourages the growth of Delaware's recreation businesses, and provides for a land use balance between recreation needs and homes, industry and commerce. The plan outlines the overall program to be undertaken by all levels of government, semi-public groups, and private enterprise. It also provides a framework for evaluation of progress and the allocation of limited financial and other resources for the maximum public benefit.

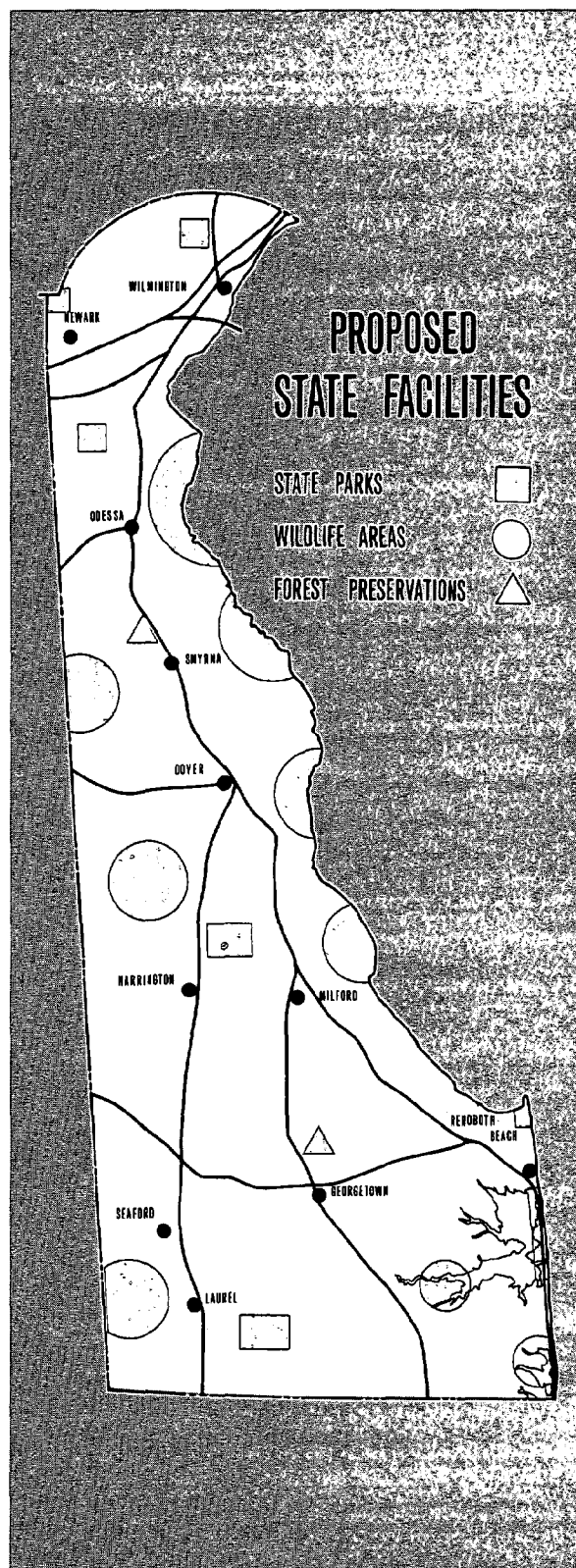
## THE STATE PROGRAM

The State Program includes a variety of facilities ranging from the active state park to the more passive forest or wildlife area. The Program establishes wildlife areas, impounded waters and accesses, forest preservations, state parks, and historic-prehistoric areas. It also includes present State ownership and considers areas in which the State should express a long-range conservation interests, and evaluation of fulfilling recreation needs.

Based on the State's natural resources, the present and projected population, the demand and needs studies, and the State's responsibilities; the plan recommends that the State acquire an additional 34,950 acres by 1980 and 22,600 acres between 1980 and 2000. These acquisitions, with the present State ownerships of 26,252 would provide over 61,000 acres of outdoor recreation land by 1980 and 83,800 acres by 2000. These lands would provide seven major parks, nine wildlife areas, two large forest preservations, a number of protected historic and archaeological sites, and over fifty public fresh water fishing ponds.

### Wildlife Areas

Wildlife areas represent prime natural lands which are necessary for national and state-wide wildlife management purposes. These areas encompass much of the river, bay and ocean areas. They offer sports, education, and pleasure, and serve as a vital link in the cycle of many life forms. Potential uses include hunting, picnicking, hiking, horseback riding, field trials, fishing, and nature study as well as an aid in the balance of the ecology.



Wildlife areas in Delaware are of two major types, upland and wetland. Each has its own characteristic terrain, and each offers certain opportunities not readily available elsewhere. Fortunately, the need for preserving many of these areas has been long recognized by State and private interests. In no other type of outdoor recreational facility is the State better prepared for present and future demands. Presently, there are over 15,800 acres of wildlife area administered by the Department of Natural Resources and Environmental Control, 5,000 acres licensed to the State by the U. S. Corps of Engineers and another 22,000 acres under the jurisdiction of the U. S. Department of the Interior giving a total of over 42,000 acres of wildlife areas.

Delaware's wetlands are among the most productive on the Atlantic Coast. They are a part of a coastal marsh system which annually provides nesting, rearing, feeding, resting and protective cover to many of the 4 million waterfowl using these areas during their north and south migrations. These areas also provide habitat for numerous other birds, for furbearers, and for many small game species.

Consequently these areas are among the most threatened since they are valuable for industry and commerce due to their proximity to navigable waters. They are also valuable, after destructive filling and canal or channel construction, for waterfront residential development. These two actions are presently reducing the wetlands by approximately 1,000 acres a year.

Upland areas offer a somewhat different type of outdoor recreational experience than the wetlands, although many similar activities can take place. Both areas offer hunting, nature study, and hiking, yet the experience differs due to different species and habitat plus the considerably different terrain and cover.

The Outdoor Recreation Plan for Delaware proposes that acquisition of both upland and wetland areas continue. Such acquisition should be conducted for the purpose of completing existing wildlife areas in order to form efficient management and recreational units. The plan recommends acquisition of over 26,700 acres of wetland and 13,700 acres of upland wildlife area within the next thirty years.

#### **Impounded Waters, Water Accesses and Related Facilities**

Another specific policy of the plan indicates the State's commitment to the acquisition of impounded waters as well as acquisitions to ensure the right of public access to tidal waters. A long-range program of the State Fish and Wildlife Division has been the acquisition of pond and lake sites, the construction of control structures, and the provision of launching ramps, parking areas, and related facilities to encourage use of these waters for fishing and boating.

The needs study indicates that additional water and land areas, boat launch facilities and parking will be necessary to satisfy the 1980 and 2000 demand. The plan recommends that an additional forty sites be acquired for fishing ponds along with sufficient land area for picnicking, boating, and passive recreational use. The plan further recommends that the right of public access to the State's waters be guaranteed by the acquisition and development of appropriately located marine boat launches, and that areas suitable for boating and canoeing uses be delineated and protected.

#### **Forest Preservations and Other Woodlands**

Woodlands are as important a part of the total ecology of the State as any other natural resource area. They provide cover and habitat for many forms of wildlife; they are part of the process by which the oxygen content of the atmosphere is maintained; and they contribute to the total rainfall-runoff-absorption cycle. Woodlands also provide screening, add value to adjacent developments, and contribute to the psychological satisfaction with one's environment.

One hundred fifteen different species of trees native to Delaware woodlands have been identified. It is important that these individual species be afforded the same concern given to the rare and endangered wildlife species in order that no part of the State's natural heritage be lost.

The plan recommends that at least two major forest preservations be developed and that woodlands on the various other State recreation areas be preserved for their natural and aesthetic values.





### Historic and Prehistoric Resources

The Comprehensive Outdoor Recreation Plan recognizes that resources other than those of a natural origin are part of the State's heritage and should be included in any comprehensive approach to provide for a balanced recreational experience. Specific projections of the role of the historic and prehistoric resources cannot easily be derived but it is noted that two of the major outdoor recreational activities, weekend and vacation trips, traditionally include visits to these facilities by those who recognize their value.

A Statewide Historic Preservation Plan, currently being prepared by the State Archives and Cultural Affairs Division of the Department of State, is addressing the designation and use of the State's historic resources.

### State Parks

Parks are the most developed of all the State outdoor recreational facilities and are also the most extensively used. For these reasons and because their location must reflect accessibility to the urban centers, State parks are also the most expensive. Their number, location, and development must be given the highest level of thought and proper planning.

The plan includes a review of the potentials for park use based upon an evaluation of natural features, population, location, the availability of funds, and the objective of reaching an overall minimum level of development in every park by 1980 to ensure public use of each of these facilities.

### White Clay Creek State Park

White Clay Creek State Park is located in the northwestern portion of New Castle County. It is about three miles north of Newark, and 18 miles west of Wilmington. When complete, the park is proposed to be approximately 700 acres in size, and located adjacent to a large water supply reservoir.

Because of its proximity to a large concentration of population, the park development emphasis will be on day-use facilities. The terrain, very steep in some areas and heavily wooded in others, offers many opportunities for the development of a variety of activities. Among these are: swimming, boating, picnicking, golf, informal athletics, court and deck games.

Supporting facilities, such as a lodge for informal group activities and an outdoor theater for the performing arts, could also be provided. White Clay Creek State Park, at full development can accommodate 13,000 users at one time. Its development has a high priority due to its proximity to the Newark-Wilmington urban areas.

### Lums Pond State Park

Lums Pond State Park came into State ownership through the United States Army Corps of Engineers' activity along the Chesapeake and Delaware Canal. It originally provided a water supply for the canal locks. When the canal became a sea level waterway, the pond was regarded as excess land and turned over to the General Services Administration for disposal.

One hundred and sixteen acres of the State-owned portions have been developed as a park. The existing 464 acres of State park land is contiguous to a 563 acre wildlife area and 5,000 acres of federal land along the Chesapeake and Delaware Canal. These lands could all be part of a linear park system along the Canal including recreation areas at Lums Pond, at Fort duPont (near Governor Bacon Health Center), at Delaware City and at selected areas on the Canal. The area has the potential to become a strong link in the State's recreation program. It could be said that it is presently the southern extent of the State's major metropolitan area.

Lums Pond State Park could accommodate a variety of outdoor recreation uses including camping, swimming, active play, hiking, nature study, picnicking, boating and fishing. Water oriented uses could be available both at the pond and at pools. A historic area containing two important structures, the Sign of the Buck Tavern and the Samuel Davies House, both under restoration by the State Archivist, are important elements in the park. Fishing and picnicking sites also are suggested throughout the park. Full development of Lums Pond State Park could provide active and passive recreation for over 17,000 users.



### **Brandywine Creek State Park**

Situated astride Brandywine Creek in the rolling hills of the Piedmont Plateau, Brandywine Creek State Park provides outdoor recreation opportunity for the most urban portion of the State. The park is located within five miles of Wilmington, easily accessible to the majority of the area's residents. The park is characterized by rolling hills and open fields to the west of the Brandywine and rugged wooded slopes to the east. These characteristics offer outstanding potential for the development of various nature-oriented facilities.

Because of its location, development emphasis is on day-use activities and interpretation and enjoyment of the park's natural qualities. The park will provide for picnicking, canoeing, hiking, nature study and pool swimming for an estimated total 7,400 users at one time.



### **Killens Pond State Park**

Killens Pond State Park is located in central Kent County within easy reach of the major development expected in central Delaware. It is within a half hour drive of the Dover and Milford urban areas which are projected to have a combined a 1980 population of 105,800 and a 2000 population of 148,000.

The park focuses on two fresh water ponds, Killens and Courseys with a combined water area of approximately 110 acres, and the stream-valley of the upper Murderkill River. There is very little development at present in the park. However, initial planning indicates that substantial development is possible within the limitations of funding.

Primary facilities to serve over 17,000 users could include a beach complex on Killens Pond, boating concessions on both ponds, picnic areas, a nature study complex and areas reserved for active recreational uses such as ballfields, tennis courts, and basketball courts. The Park could also include a day camp area designed for organized group activities.

### **Delaware Seashore State Park**

Delaware Seashore State Park is comprised of two parts, a six-mile stretch of barrier beach extending from Cotton Patch Hills on the south to Indian Beach on the north, and a three-mile section bounded by Fenwick Island on the south and South Bethany on the north. Many visitors from Maryland and the District of Columbia as well as Delaware residents enjoy the recreational facilities available at the ocean and bay.

Proposed development is focused on ocean and bay bathing at self-contained bathing units, each with a capacity of 1,000 people, expandable to 2,000. The units will include parking, bathhouse, snack-bar and ocean or bay bathing. Of primary concern in the development of the ocean front bathing units is protection of the dunes and their vegetative cover. These dunes form an ocean barrier, and the protection and stimulation of natural plant growth is the only practical means to preserve and stabilize them. Consequently, the ocean bathing units must be located with great care and the access across the dunes strictly limited.

Extensive bayside development is proposed in the Indian River Inlet area and on Burton Island. Fishing and boating activities will be concentrated here. A fishing pier, charter boat, concession areas, marinas and boat launch facilities, restaurant and recreation areas are proposed. A focal point of development is a recommended activity center on Burton Island which will provide facilities for public meetings or other social events.

Careful development of this park could provide facilities for over 14,000 users at any one time without jeopardizing the natural beauty and value of these resources.

### **Cape Henlopen State Park**

Cape Henlopen State Park is a former military reservation acquired from the federal government in 1964 when it was declared excess land no longer needed for national defense. The park is part of a larger reservation of which some 823 acres are still under military control.

Cape Henlopen is recommended to be extensively developed with several distinct but interrelated areas of interest. A major focus will be on family camping located in the former military garrison area. Another major use area will be ocean bathing complexes. A third activity of interest will be nature study complexes, one at the most northerly tip of the Cape, the other in sandy and marshy areas in the central portions of the park. In addition to these proposed activities, facilities for fishing, field sports, tennis, and indoor recreation are recommended to round out the park development serving approximately 23,500 users.



### Trap Pond State Park

Trap Pond State Park is located in the southern portion of the State, in Sussex County. It is the most remote from the large population centers of Dover, Wilmington, and Newark, but it is easily reached via U. S. Route 13, a major north-south artery less than five miles west of the park. The park size, including proposed acquisitions and protective easements, is approximately 3,400 acres.

Presently, the most heavily developed of the parks in the State's system, Trap Pond emphasizes group use and extended-stay use, characterized by the provision of facilities for the handicapped and camping areas. In keeping with the site characteristics and the known demand for extended-stay facilities, recommended development includes facilities for camping, swimming, boating, picnicking, nature study, hiking and bridle trails.

The park could provide a variety of outdoor recreation activities for over 10,000 users in a woodland and pond setting.



### Long-Range Conservation

Some lands in the State are worthy of protection for their conservation value alone regardless of any role they may ultimately play in meeting outdoor recreation needs. In some cases, these lands are critical for conservation or open space purposes, but their size, configuration, or location does not permit recreational use except of the most passive type. Many of the remaining wetlands on the State's inland bays are of this type. These areas are often small, scattered, and lack access; however, they contribute to the complex ecological relationships of the recreational resources, and hence are worthy of protection.

In another case, an area could be of a unique character and require total preservation in its own right with little concession to the demands of recreational users. The importance of the area as a rare part of the natural or historic heritage may far supercede the recreation need. Yet, the area may provide for passive recreation in the form of nature study, bird watching, and hiking. Still other areas are subjects for the State's long-range concern as recreational resources, but because of the interest of another jurisdiction or a private conservation group have not been included in the State's acquisition program. The intention, in so noting these areas, is to indicate the desirability of State action to preserve the resource should other interests fail.

The areas within these long-range conservation interests include approximately 20,000 acres. These lands are to be preserved for their ecological value, for completion of important open spaces, or for preservation of a unique link with the national heritage.

### FEDERAL PROGRAMS

The Federal government's role in outdoor recreation in Delaware has been limited primarily to protection of wildlife and to the development of subsidiary recreational facilities as part of navigation and wildlife management programs.

The Federal government has plans to acquire approximately 4,000 additional acres to complete its wildlife refuges at Bombay Hook and Primehook. These areas when completed will encompass over 26,000 acres under the administration of the U. S. Department of the Interior, Fish and Wildlife Service. The proposed areas will be part of a system of federal wildlife refuges established for the protection of migratory waterfowl along their Atlantic Flyways.

The U. S. Corps of Engineers owns approximately 5,000 acres along the Chesapeake and Delaware Canal. While used primarily for disposal of dredged spoils, this land has recreational potential for hunting, fishing, hiking and nature study. The Corps has long-range plans to devote portions of their land for recreational uses in conjunction with State efforts at Lums Pond State Park. The Federal government also owns land in the Lewes-Cape Henlopen area. The largest of these ownerships totals 823 acres used for military purposes. This ownership and use bisects and seriously hampers the recreational use of Cape Henlopen State Park. The Delaware Comprehensive Outdoor Recreation Plan strongly recommends the release of these lands for the recreational needs of Delawareans and their visitors.

The plan does not recommend the creation of any new federal wildlife or recreation areas because the recreation needs can more appropriately be met through State and locally-owned facilities. However, the federal lands and programs, especially federal research, funding, and planning assistance, can greatly contribute to the State's outdoor recreation resources and ensure the maximum recreational and wildlife benefits of these resources.

#### LOCAL NEEDS

The State's Outdoor Recreation Plan is not intended to specifically determine the types of, or sites for local recreational facilities. This is the proper action for county and municipal agencies. The State, however, does have a long term interest in the local system as the local needs are generally the most pressing. The financial constraints on local governments make the acquisition and development of outdoor recreation facilities difficult, and the needs, if unmet, will ultimately be translated into State-wide problems.

Recreation programs are underway in many local jurisdictions and anticipated in a number of others. It is emphasized that local needs must be realized and efforts undertaken to meet these needs. The application of accepted standards of local recreation areas indicates a possible deficiency of recreation land of over 14,700 acres by 1980 and almost 22,000 acres by 2000.

Previous State efforts to offset the local needs have taken at least three different forms: financial assistance, technical assistance, and transfer of facilities for local recreational uses. Delaware now provides assistance to local governments for all phases of recreation. Various State programs provide for acquisition, planning, development and recreation programming. Given the forecasted needs in urban areas, maximum efforts must be directed toward providing outdoor recreation facilities which serve local needs. Local governments and the State must continue to expand their recreation programs and must make maximum use of all available funding and assistance to meet this high priority need.

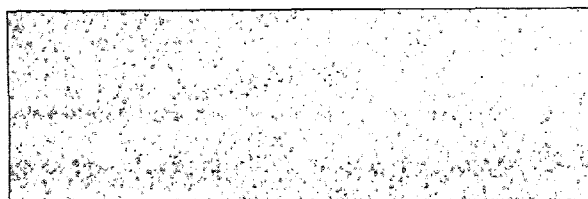
#### PRIVATE ACTION

The Comprehensive Outdoor Recreation Plan cannot easily determine the specific role and responsibility of private enterprise or of the private conservation groups. In the first instance, the profit motive must be clearly recognized as part of any activity engaged in by private enterprise. By virtue of this relationship, private enterprise will not provide facilities or services from which it cannot receive a fair return.

In the second case, the pure conservation motive is most clear, often to the point of serious limitation on use. These pure conservation motives are as reasonable as those of profit or use. The efforts of the conservation groups may offer a chance of a more efficient allocation of public resources by allowing the use of public money to meet active needs as well as to preserve resources for future recreational needs.

The actions of these two segments of the private sector can contribute to the satisfaction of needs if proper encouragement is given by public agencies and their programs. Privately owned and operated outdoor recreation facilities are vital to the satisfaction of the total demand. Recreation businesses contribute considerably to the economy of the State. Its many forms range from marinas and camp grounds to a host of services including food, entertainment, and accommodations. Tourism is the chief industry in Sussex County, contributing heavily to the economy of Rehoboth Beach and other resort communities. It has been estimated that the tourist industry generated over 100 million dollars in trade in 1967. Private enterprise should accept its responsibility and provide those facilities for which it is best suited, including deluxe campgrounds, motels and hotels, restaurants, and resort entertainment. It should, accept the coincident responsibility to work with government to create and enforce effective regulations to protect the natural resources on which the "recreation business" is built.

The private conservation group, on the other hand, can play an equally important role in providing the impetus for public action to protect these resources through their own acquisition and management, and in conducting a broad-based program of public education. Action in this regard should go far in stimulating a viable private interest, to the advantage of the outdoor recreation participant and the economy.



## AN ACTION PROGRAM

The major problems, issues and opportunities of the State and the programs undertaken to resolve these have relevance to outdoor recreation directly or to the environment in which the recreation experience occurs. As noted in the special problems analysis and elsewhere in the plan, Delaware must be prepared to meet many challenges.

The Action Program outlines financial and other actions through which the federal, State, and local governments can work toward an orderly and coordinated implementation of the plan. In order to achieve the goals and objectives of the Plan, the State has undertaken a variety of studies, research efforts, and enforcement programs to protect the environment. It has also proposed a program to acquire 57,548 acres over the next thirty years at an estimated cost of \$55,000,000. Over 34,000 of these acres are of such value and are threatened to the point where action will be necessary within the next ten years.

Priorities are required in order to guide the necessary acquisitions into areas of greatest benefit. These priorities provide for the protection of Coastal and Bay wetlands and for the completion of State facilities which serve the urban portions of the State as a first priority. Acquisition is further favored over other activities, however, the State recognizes the need for making its areas suitable for use. Development priorities have also been prepared with special emphasis on the urban facilities and the active recreation facilities for which there is a high level of demand. The development program envisions the expenditure of over \$28,000,000, in the first ten year period, to increase the utility of the State's facilities.

Achievement of this ambitious program will, of course, depend on the availability of funding and the ease with which the necessary land can be acquired. Nevertheless, with federal support under the Land and Water Conservation Fund, a concentrated and dedicated effort can be made to make Delaware's program a model for the rest of the nation.

Federal and local governments have also made plans to meet the need. The Federal government has indicated its continued emphasis on completing its wildlife refuges and on supporting the cooperative recreational use of lands held for navigational purposes.

Acquisition and development programs are underway by county and local jurisdictions throughout the State. The most notable programs are being carried out in New Castle County. Kent County is only now establishing a

recreation department and Sussex County has yet to formalize programs to meet its recreational needs. The lack of action in these latter areas reflects more pressing concerns including regional sewage needs and the lack of comprehensive plans rather than a disregard for recreation. Programs are also underway in many of the communities, although the earlier scarcity of development funds stalled many such efforts. The New Castle County Parks and Recreation Department, and the City of Wilmington, have programmed over \$14 million during the period 1971-1976. Their projects will be of considerable value in meeting the outdoor recreation needs of the State's urban residents.

Other local action programs include that of the City of Dover, which anticipates expenditures of \$350,000 for acquisition and \$250,000 for development during 1971-1976. Acquisition and development projects are in a number of localities, most notably Seaford in Sussex County and Newark in New Castle County. All of these will be of benefit in meeting the outdoor recreation need and should be actively supported.

## CONTINUING ACTION

A plan is nothing more than a coordinated comprehensive look into the future based on the conditions, data and trends evident at the time of its preparation. If these change over time, the plan will no longer adequately portray the current setting for outdoor recreation and, hence will be of limited usefulness. Therefore, the plan will be periodically updated to reflect progress made since the initial preparation. Each update will reevaluate goals, objectives, policies, and priorities in light of changes in the quantity and type of outdoor recreation facilities demanded. The update will also reflect shifts in governmental attitudes, especially as related to their respective responsibilities, and changes in administrative and fiscal capabilities.

The public must also participate. It must make known its desires regarding the quality, character, quantity, and location of the facilities. This responsibility is paramount. Governments and the plans they produce are intended to provide a service to the public. The citizen's responsibility requires that they make known their desires, support the plans and programs, and preserve and protect their natural heritage. In so doing, they will provide maximum outdoor recreation for themselves and a chance for future generations to meet their needs in an even more urban environment.

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